

SECTION 13010

IMPACTED MATERIAL PLACEMENT

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes the placement of impacted material in the On-Site Disposal Facility (OSDF).

1.02 RELATED SECTIONS AND PLANS

- A. Section 02100 - Surveying
- B. Section 02200 - Earthwork
- C. Section 02240 - Protective and Contour Layers
- D. Section 02270 - Erosion and Sediment Control
- E. Impacted Materials Placement (IMP) Plan, with Appendix A, Impacted Materials Placement Quality Assurance (IMPQA) Plan, Revision 1, October 1997.
- F. Surface-Water Management and Erosion Control (SWMEC) Plan, Revision 9, May 1997.
- G. Part 6 - Statement of Work
- H. Part 8 - Environmental Health and Safety, and Training Requirements

1.03 SUBMITTALS

- A. Include equipment for impacted materials placement in the Earthwork Work Plan specified in Section 02200.
- B. Prepare and submit a Contractor Impacted Materials Placement Plan within 30 calendar days from Notice to Proceed that meets the requirements of the Impacted Materials Placement Plan identified in this Section. Organize the Contractor Impacted Materials Placement Plan to include, as a minimum:
 - 1. methods for loading, hauling, and temporarily stockpiling impacted materials;

2. methods for controlling the receipt of Construction Manager approved impacted materials to ensure that only approved materials meeting OSDF waste acceptance criteria (WAC), as defined in the Impacted Materials Placement Plan, are accepted;
 3. methods of categorization of impacted materials to differentiate requirements for placement in the OSDF;
 4. general impacted material placement methods to include:
 - a. inclement weather operations;
 - b. spreading, grading, and compaction; and
 - c. maintenance of surface conditions and drainage;
 5. specific impacted material placement methods for soils and soil-like materials to include spreading, grading, and compaction of:
 - a. protective layer; and
 - b. select impacted material layers.
 6. specific impacted material placement methods for Category 2, 3, 4, and 5 material;
 7. methods for managing impacted runoff during impacted material placement; and
 8. Contractor quality control activities during impacted material placement.
- B Prepare and submit a written plan for decontamination of equipment used for impacted material placement within 30 days from Notice to Proceed.

1.03 HEALTH AND SAFETY REQUIREMENTS

- A. Environmental, health and safety, and other training requirements shall be as specified in Part 8 of the Contract Documents.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Material for protective and contouring layer shall be as specified in Section 02240 and the Impacted Materials Placement Plan.
- B. Material for select impacted layer shall conform to the Impacted Materials Placement Plan and be obtained from the impacted material stockpiles shown on the Construction Drawings.
- C. Seasonal cover soil shall be Category 1 material as defined in the Impacted Materials Placement Plan.

- D. The dust suppressant/crusting agent shall meet the following criteria:
1. Pine sap emulsion comprised of a 100% organic emulsion produced from naturally occurring resins (pine sap);
 2. not comprised of chloride, lignosulfonate, petroleum, or asphaltic type emulsions;
 3. provide dust suppression and surface stability for exposed soils, both disturbed and undisturbed soils, and exposed coal fired ash (flyash);
 4. compatible with application via a hydro seeder, and must not require intense cleaning of equipment after application;
 5. non-tracking (i.e., will not stick to boots or tires) once cured;
 6. not have hazardous characteristics of ignitability, corrosivity, reactivity, or toxicity as defined on 40 CFR 261 for a hazardous waste in either its preapplied or cured states;
 7. have a flash point greater than 200° F;
 8. be neither a flammable nor combustible liquid per DOT definition; and
 9. not be susceptible to significant deterioration from exposure to the elements, including sunlight.

2.02 EQUIPMENT

- A. Provide equipment for impacted material loading, hauling, placing, spreading, grading, and compacting.
- B. Provide any special equipment required for staging and placement of building demolition debris and other special impacted materials. Equipment shall be capable of loading and hauling roll off boxes furnished by Fluor Daniel Fernald (FDF).
- C. Provide small equipment and tools (e.g., sump pumps, shovels, etc.) for safe impacted material placement and control of precipitation runoff and runoff from haul and access roads and active cell areas.
- D. Provide wheel wash equipment to remove visible mud, dirt, and/or debris from wheels, tires, under carriage, and body of hauling equipment.
- E. Provide pressure washer, including power source, supplying a maximum pressure of 5000 psi.
- F. Provide temporary storage facility to house wheel wash equipment when not in use.
- G. Equipment fueling and maintenance shall not be conducted in an active cell of the OSDF.

PART 3 EXECUTION

3.01 GENERAL

- A. Perform construction activities in such a manner that equipment operating in the radiologically controlled areas (RCA) do not operate in non-RCA. Equipment operating in a RCA shall be decontaminated and radiologically surveyed by FDF prior to exiting for use in non-RCA.
- B. Perform leachate management operations in accordance with this Section, the Construction Drawings, approved Impacted Materials Placement Plan, and Part 6 of the Contract Documents.
- C. Dust control shall be as specified in Part 6 of the Contract Document.

3.02 PLACEMENT

- A. Inspect all impacted material for OSDF disposal in accordance with the categorization framework in the approved Impacted Materials Placement Plan to assure agreement with the category designation on the manifest.
- B. Do not place an impacted material layer until the CQC Consultant has completed conformance evaluation of that layer and performance testing of previous work, including evaluation of the Contractor's survey results of previous work.
- C. Place and compact impacted materials in the OSDF in accordance with the approved Impacted Materials Placement Plan.
- D. Manage leachate in each OSDF cell during impacted material placement operations in accordance with the Part 6 of the Contract Documents.
- E. Place the impacted material in a manner that does not adversely impact leachate management, control of surface-water runoff and runoff, and dust control.
- F. Treat completed seasonal closure with approved crusting agent. Follow manufacturer's recommendations and procedures when using approved crusting agent.
- G. Install and maintain erosion and sediment controls through the winter shutdown period in accordance with Section 02270.

- H. Construct precipitation runoff and runoff control measures in accordance with Section 02270.
- I. Contain runoff in cell and manage as leachate in accordance with Part 6 of the Contract Documents.

3.03 TRAFFIC CONTROLS - IMPACTED MATERIALS

- A. Traffic shall not exceed the site speed limit of 10 mph.
- B. Loaded equipment has the right-of-way over empty equipment.
- C. Treat unmarked intersections as four-way stop intersections.
- D. Use flagmen to direct traffic at congested work areas.
- E. At any public road crossing, traffic from the public road has the right of way. Provide traffic signs, and flagmen at haul road crossings of the public road during impacted material hauling activities.

3.04 EQUIPMENT WHEEL WASH

- A. Wheels, tires, undercarriage and body of hauling equipment shall be washed in accordance with Part 8 of the Contract Documents.

3.05 EQUIPMENT DECONTAMINATION

- A. Equipment used for excavation loading, hauling, and unloading the impacted material shall not be permitted to leave the radiological control areas until equipment decontamination activities are completed by the Contractor and radiological survey of the equipment is performed by the Construction Manager.
- B. Gross decontamination of equipment shall be as specified in Part 8 of the Contract Documents.
- C. Prior to entry onto the impacted material haul road from the OSDF, remove build up of dirt or mud on haul equipment wheels, tires, undercarriage and body.

3.06 CONSTRUCTION QUALITY REQUIREMENTS

- A. CQC Consultant will perform conformance evaluation and testing of impacted materials brought to the OSDF for disposal in accordance with the Impacted Materials Placement Quality Assurance Plan.
- B. CQC Consultant will perform performance testing of impacted materials brought to the OSDF for disposal in accordance with the Impacted Materials Placement Quality Assurance Plan.

3.07 SURVEY CONTROL

- A. Survey the surface of impacted material placed in the cells a minimum of weekly and as required by the Impacted Materials Placement Plan. Survey shall include coordinates and elevations on a 100-ft grid and at grade breaks.
- B. Perform surveying in accordance with Section 02100.

3.08 TOLERANCES

- A. Tolerances for the protective and conforming layers are given in Section 02240.

[END OF SECTION]